Message

From: Williams, Jonathan R. [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E099C65734B44D97BBB040607C615812-WILLIAMS, J]
Sent: 3/18/2019 7:49:33 PM
To: 'Berwald, Derek' [berwald.derek@epa.gov]; Smearman, Stephen [Smearman.Stephen@epa.gov]; Hanson, Charmaine [Hanson.Charmaine@epa.gov]; Harty, Thomas [harty.thomas@epa.gov]; Cook, Colwell [cook.colwell@epa.gov]; Kaul, Monisha [Kaul.Monisha@epa.gov]; Sims, Diann [Sims.Diann@epa.gov]; Kiely, Timothy [Kiely.Timothy@epa.gov]; Jarboe, Stephen [Jarboe.Steve@epa.gov]; Zinn, Nicole [Zinn.Nicole@epa.gov]
CC: Costello, Kevin [Costello.Kevin@epa.gov]; 'Wyatt, TJ' [wyatt.tj@epa.gov]
Subject: RE: Updated Acetamiprid Env Risk Picture and Mitigation
Attachments: 099050_441940_PRA_12-22-17.pdf

I forgot the attachment. Here it is. -Jon

From: Williams, Jonathan R.
Sent: Monday, March 18, 2019 3:44 PM
To: 'Berwald, Derek' <berwald.derek@epa.gov>; Smearman, Stephen <Smearman.Stephen@epa.gov>; Hanson, Charmaine <Hanson.Charmaine@epa.gov>; Harty, Thomas <harty.thomas@epa.gov>; Cook, Colwell <cook.colwell@epa.gov>; Kaul, Monisha <Kaul.Monisha@epa.gov>; Sims, Diann <Sims.Diann@epa.gov>; Kiely, Timothy <Kiely.Timothy@epa.gov>; Jarboe, Stephen <Jarboe.Steve@epa.gov>; Zinn, Nicole <Zinn.Nicole@epa.gov>
Cc: Costello, Kevin <Costello.Kevin@epa.gov>; 'Wyatt, TJ' <wyatt.tj@epa.gov>
Subject: RE: Updated Acetamiprid Env Risk Picture and Mitigation

Hi all,

The first photo below is a screengrab provided by EFED of the revised bee numbers for acetamiprid. These numbers will be published in their RtC document. The numbers changed based on the use of a different NOAEL (see footnote 1 in image).

During this morning's meeting, TJ asked if EFED had considered higher tier pollinator studies in their assessment. I have reviewed the DRA, and it *does* incorporate data from the full-field (tier 3) assessment, as well as lower tier studies. The second photo (from pp 44 and 45 of the DRA; attached) summarizes the studies incorporated into the risk picture.

Finally, the third screenshot shows the RQs for aquatic inverts by use site (for details, see pp 60-64 of the DRA).

If you have any other questions or would like more specifics, please let me know.

-Jon

Table 1. Comparison of highest BeeRex RQs based on endpoints used in 2017 PRA and updated/revised endpoints.

Exposure	2017 PRA	Updated RQs
Adult bees		
Acute contact	0.13	Deliberative Process / Ex. 5
Acute dietary	**1.86**	
Chronic dietary	**6.9**	
Larval bees		
Acute contact	N/A	
Acute dietary	0.33	
Chronic dietary	0.58	

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Table 26. Summary of Laboratory-based (Tier 1) and Colony-level Semi-field (Tier 2) and Full-field (Tier 2) Acetamiprid Studies

Study Tier	Guideline	Toxicity Endpoint (µg ai/bee)	Toxicity Category	MRID	Study Classification
1	850.3020	LD_{50} <12.5	Moderately toxic	44651874	Supplemental
		LD_{50} = 10.53	Moderately toxic	50015704	Supplemental
		LD_{50} >100	Practically nontoxic	45932503	Supplemental
		LD_{50} >10.21	Slightly-toxic	44651874	Supplemental

Study Tier	Guideline	Toxicity Endpoint (µg ai/bee)	Toxicity Category	MRID	Study Classification
	Non-Guideline (OECD TG 213)	LD_{50} = 8.96	Moderately toxic	50015704	Supplemental
		LD_{50} = 22.32	Practically nontoxic	45932503	Supplemental
	Non-Guideline (OECD Draft TG)	10-day NOAEL=2.42	NA	50015702	Supplemental
	Non-Guideline (OECD Draft TG)	7-day NOAEL 12.20 LOAEL 26.4 (mortality)	NA	50015703	Supplemental
-	850.3030	*Inconclusive results*		44651875	Invalid
		RT_{25}<3 hrs		45346901	Acceptable
2 (&3)	Non-Guideline (OECD Guidance 75)	Foliage (0.011 – 0.013 ppm @ 20 DAA) Pollen (0.157 – 0.178 ppm @ 3 DAA; 0.104 – 0.136 ppm @ 6 DAA) Nectar (0.068 – 0.128 ppm @ 3 DQAA; <LOQ of 0.01 – 0.012 ppm @ 6 DAA)		50015701	Supplemental
3	850.3040	*No significant effects (See Appendix B for more details).*		45932504	Supplemental
				45932505	Supplemental

Table 36. Risk Quotients (RQs) for Direct Effects to Aquatic Invertebrates Inhabiting the Water-column from the Evaluated Aerial Uses of Acetamiprid (on the Basis of Residues from Parent Acetamiprid Only)

Use Scenario	EECs (1-d/21-d/60-d, µg a.i./L)	Freshwater Invertebrates		Estuarine/Marine Invertebrates	
		Acute Chironomid EC_{50} = 21 µg a.i./L	Chronic Daphnid NOAEC = 5,000 µg a.i./L[1]	Acute Mysid EC_{50} = 66 µg a.i./L	Chronic Mysid NOAEC = 2.5 µg a.i./L
Citrus	10.9/10.0/8.6	0.52	12.50	0.17	4.00
Cotton	10.3/9.8/8.9	0.49	12.29	0.05*	1.12
Cranberry (PFAM)[4]	29.0/27.6/26.3	0.94	22.63	0.44	11.04
Fruiting Vegetables	11.4/10.6/9.2	0.55	13.25	0.17	4.24
Leafy Vegetables	7.0/6.7/6.2	0.33	8.33	0.11	2.66

[24] Using water-column toxicity data to predict toxicity to benthic aquatic invertebrates is a standard practice in evaluating the potential for sediment toxicity to occur (USEPA, 2014c).

Use Scenario	EECs (1-d/21-d/60-d, µg a.i./L)	Freshwater Invertebrates		Estuarine/Marine Invertebrates	
		Acute Chironomid EC_{50} = 21 µg a.i./L	Chronic Daphnid NOAEC = 5,000 µg a.i./L[1]	Acute Mysid EC_{50} = 66 µg a.i./L	Chronic Mysid NOAEC = 2.5 µg a.i./L
Low-growing Berries (1 CC)[3]	4.9/4.6/4.2	0.23	5.78	0.07*	1.85
Low-growing Berries (3 CC)[3]	11.2/10.3/8.7	0.54	12.88	0.17	4.12
Ornamentals Grown in Fields/ Plantations	15.6/14.1/11.2	0.75	17.63	0.24	5.64
Pome Fruit	9.8/9.3/8.5	0.47	11.61	0.15	3.72
Tree Nuts	11.0/10.1/8.7	0.53	12.63	0.17	4.04

A bold value indicates that the RQ meets or exceeds the acute listed (0.05) and non-listed (0.1) LOC, or the chronic risk LOC (1.0). An asterisk ("*") on an acute value indicates that only the acute listed species LOC (0.05) is exceeded.

[1] The NOAEC used to calculate risk quotient for freshwater invertebrates inhabiting the water-column was calculated using data for *D. magna* which are not the most sensitive aquatic invertebrates based on acute toxicity.

[2] Toxicity endpoints are based on water-column toxicity studies because sediment pore water toxicity endpoints are not available.

[3] The labels allow for use on crop group 13-07 G low growing berries (including cranberries). This RQ would be representative for uses on cranberries and other low growing berries that are not intermittently flooded.

[4] Pore-water EECs were not calculated for use on cranberries. However, the EECs for the cranberry use pattern are expected to be similar to those captured in this table for other use patterns.

From: Williams, Jonathan R.
Sent: Monday, March 18, 2019 2:10 PM
To: Berwald, Derek <berwald.derek@epa.gov>; Smearman, Stephen <Smearman.Stephen@epa.gov>; Hanson, Charmaine <Hanson.Charmaine@epa.gov>; Harty, Thomas <harty.thomas@epa.gov>; Cook, Colwell <cook.colwell@epa.gov>; Kaul, Monisha <Kaul.Monisha@epa.gov>; Sims, Diann <Sims.Diann@epa.gov>; Kiely, Timothy <Kiely.Timothy@epa.gov>; Jarboe, Stephen <Jarboe.Steve@epa.gov>; Zinn, Nicole <Zinn.Nicole@epa.gov>
Cc: Costello, Kevin <Costello.Kevin@epa.gov>; Wyatt, TJ <wyatt.tj@epa.gov>
Subject: RE: Updated Acetamiprid Env Risk Picture and Mitigation

Thank you to all who attended this morning's meeting. Attached is an attendance sheet and below are notes. The notes are a little messy because the formating did not transfer to email well. I have cleaned them the best that I can. Best, Jon

- Management says we need to consider Univ of Guelph data for neonics

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- Acetamiprid will use other neonic mitigation as general guidance for mitigation

Deliberative Process / Ex. 5

- The worst site is cranberries; likely because applying to a bog

Deliberative Process / Ex. 5

Schedule

Deliberative Process / Ex. 5

In terms of possible mitigation

Deliberative Process / Ex. 5

-----Original Appointment-----
From: Williams, Jonathan R.
Sent: Monday, March 11, 2019 2:13 PM
To: Williams, Jonathan R.; Berwald, Derek; Smearman, Stephen; Hanson, Charmaine; Harty, Thomas; Cook, Colwell; Kaul, Monisha; Sims, Diann; Kiely, Timothy; Jarboe, Stephen; Zinn, Nicole
Cc: Costello, Kevin; Wyatt, TJ
Subject: Updated Acetamiprid Env Risk Picture and Mitigation

When: Monday, March 18, 2019 11:00 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: DCRoomPYS9100/Potomac-Yard-One

Hi all,

Please refer to my recent email (text copied below) with the same subject line as this meeting invite. The purpose of this invite is to discuss how best to mitigate the updated risk picture for acetamiprid, as a result of EFED's analysis of the U of Guelph data.

Best,
Jon

Hi BEAD,

Those present at our mitigation and team meeting on Wed, Feb 13 will remember that EFED had just begun to review the University of Guelph data on the neonics as it applies to acetamiprid. At that time, Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

While we await EFED's analysis, PRD would like to meet with BEAD to discuss our options for any further mitigation. We would like BEAD's help in understanding what benefits data are available, what other information BEAD could provide and on what timeframe, the costs of any mitigation, and in devising the best path forward. Following this email, I will circulate a meeting request to this effect.

Best,
Jon

Jonathan R Williams
Chemical Review Manager
Pesticide Re-Evaluation Division RMIB II
Office of Pesticide Programs
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
williams.jonathanr@epa.gov
703-347-0670